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10/773,068

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Steve Elmer

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EXAMINER

ADAMS, CHARLES D

ART UNIT

PAPER NUMBER

2164

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/773,068

Applicant(s)

ELMER, STEVE

Examiner

Charles D. Adams

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Remarks***

1. In response to communications filed on 18 April 2007, claims 1, 11, and 21 are amended and claim 31 is cancelled. Claims 1-30 and 32 are pending in the application.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 11-20 are rejected under 35 U.S.C. 101 because, though the preamble to the independent claim describes "an apparatus", the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*. The different limitations are simply 'modules', which, lacking any hardware claimed in conjunction with the 'apparatus', are read as software.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 11-12, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glerum et al. (US Patent 6,652,267) in view of Marullo et al. (US Patent 6,185,701).

As to claim 1, Glerum et al. teaches a method of testing browser software in a computer environment (see Abstract and 1:38-57), the method comprising the steps of:

Glerum et al. does not teach generating a list of URLs (Universal Resource Location) using a web crawler;

Marullo et al. teaches generating a list of URLs (Universal Resource Location) using a web crawler (see 13:62-14:14).

Glerum et al. as modified teaches applying a browser test (see Marullo et al. 8:22-45), wherein said browser test script automatically instructs a first browser program containing said browser software to load and render web pages according to the list of URLs, wherein said browser test script tests said browser software over a plurality of applications at sites contained within the list of URLs (see Marullo et al. 8:22-45);

Detecting one or more errors in rendering of said first browser program using the web pages (see Glenrum et al. 1:38-57 and 4:63-5:3); and

Automatically storing information about said one or more errors (see Glenrum et al. 4:63-5:3);

Wherein said step of applying a browser test script is performed while said first browser program is under development and prior to distribution (see Glenrum et al. 4:63-5:3 and 8:61-9:3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Marullo et al., since Marullo et al. teaches that "by providing for the aforementioned automated client-based web universal resource (link) extraction tool, such automation avoids the inadequacies associated with user testing and intervention wherein manual users might otherwise be required to request pages, view document source, and document all of the links (assuming they were found without error) associated with the HTML pages. The getlinks subsystem accordingly automatically finds all links on each page, and moreover formats the output data for use by the other test tools" (see 14:32-43).

As to claim 11, Glerum et al. teaches an apparatus of testing browser software in a computer environment (see Abstract and 1:38-57), comprising:

Glerum et al. does not teach a module for generating a list of URLs (Universal Resource Location) using a web crawler;

Marullo et al. teaches a module for generating a list of URLs (Universal Resource Location) using a web crawler (see 13:62-14:14);

Glerum et al. as modified teaches a browser test script module (see Marullo et al. 8:22-45), wherein said browser test script module automatically instructs a first browser program containing said browser software to load and render web pages according to

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the list of URLs, wherein said browser test script tests said browser software over a plurality of applications at sites contained within the list of URLs (see Marullo et al. 8:22-45);

A module for detecting one or more errors in rendering of said first browser program using the web pages (see Glerum et al. 1:38-57 and 4:63-5:3); and

A module for automatically storing information about said one or more errors (see Glerum et al. 4:63-5:3);

Wherein said first browser program is under development prior to distribution of said browser program (see Glerum et al. 4:63-5:3 and 8:61-9:3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Marullo et al., since Marullo et al. teaches that "by providing for the aforementioned automated client-based web universal resource (link) extraction tool, such automation avoids the inadequacies associated with user testing and intervention wherein manual users might otherwise be required to request pages, view document source, and document all of the links (assuming they were found without error) associated with the HTML pages. The getlinks subsystem accordingly automatically finds all links on each page, and moreover formats the output data for use by the other test tools" (see 14:32-43).

As to claim 21, Glerum et al. teaches a program storage medium readable by a computer, tangibly embodying a program of instructions executable by the computer to

perform a method for testing a browser software in a computer environment (see Abstract and 1:38-57), the method comprising the steps of:

Glerum et al. does not teach generating a list of URLs (Universal Resource Location) using a web crawler;

Marullo et al. teaches generating a list of URLs (Universal Resource Location) using a web crawler (see 13:62-14:14);

Glerum et al. as modified teaches applying a browser test script (see Marullo et al. 8:22-45), wherein said browser test script automatically instructs a first browser program containing said browser software to load and render web pages according to the list of URLs, wherein said browser test script tests said browser software over a plurality of applications at sites contained within the list of URLs (see Marullo et al. 8:22-45);

Detecting one or more errors in rendering of said first browser program using the web pages (see Glerum et al. 1:38-57 and 4:63-5:3); and

Automatically storing information about said one or more errors (see Glerum et al. 4:63-5:3);

Wherein said step of applying a browser test script is performed while said first browser program is under development and prior to distribution (see Glerum et al. 4:63-5:3 and 8:61-9:3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Marullo et al., since Marullo et al. teaches that "by providing for the aforementioned automated

client-based web universal resource (link) extraction tool, such automation avoids the inadequacies associated with user testing and intervention wherein manual users might otherwise be required to request pages, view document source, and document all of the links (assuming they were found without error) associated with the HTML pages. The getlinks subsystem accordingly automatically finds all links on each page, and moreover formats the output data for use by the other test tools" (see 14:32-43).

As to claims 2, 12, and 22, Glerum et al. as modified teaches wherein the one or more errors include a crash of the first browser program in rendering one of the web pages (see 1:38-57).

6. Claims 3-6, 13-16, 23-26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glerum et al. (US Patent 6,6529,267) in view of Marullo et al. (US Patent 6,185,701), and further in view of Dutta et al. (US Patent 6,918,066).

As to claims, 3, 13, and 23, Glerum et al. as modified teaches the claim upon which this claim is dependent.

Glerum et al. does not teach automatically instructing a second browser program to load and render the web pages;

Dutta et al. teaches automatically instructing a second browser program to load and render the web pages (see Dutta et al. 7:23-35);



Glerum et al. as modified teaches comparing a representation of rendering results of the first browser program to a representation of rendering results of the second browser program (see Dutta et al. 7:60-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Glerum et al. by the teaching of Dutta et al., since Dutta et al. teaches that “In addition to testing the web site on the various browsers to determine the effectiveness of each browser, it is also desirable to have a technique that can compare each browser’s execution of the web site to a set of criteria established by the web designed” (see 3:15-20).

As to claims 4, 14, and 24, Glerum et al. as modified teaches wherein one or more errors are detected when the representation of rendering results of the first browser program does not match the representation of rendering results of the second browser program (see Dutta et al. 8:65-9:14 and 8:41-55).

As to claims 5, 15, and 25, Glerum et al. as modified teaches wherein the representation of rendering results of the first browser program comprises a screen image of a web page returned by the first browser program (see Dutta et al. 7:66-8:3 and 8:41-55 and Figure 5).

As to claims 6, 16, and 26, Glerum et al. as modified teaches wherein the representation of rendering results of the first browser program comprises an internal

representation of a web page as interpreted by the first browser program (see Duta et al. 8:41-55 and 8:65-9:14. The display of the web page is an 'internal representation of a web page as interpreted by the first browser program', as is the scorecard).

As to claim 32, Glenrum et al. as modified teaches wherein a rendering of a known browser program is compared with said first browser program to validate in part said first browser program (see Dutta et al. 7:50-65. The first browser program's score (an evaluation of how it was rendered) is compared to other known browser programs).

7. Claims 7, 17, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glerum et al. (US Patent 6,6529,267) in view of Marullo et al. (US Patent 6,185,701), in view of Dutta et al. (US Patent 6,918,066), and further in view of Castro ("HTML FOR THE WORLD WIDE WEB").

Glerum et al. as modified teaches the claims upon which these claims are dependent.

Glerum et al. does not explicitly teach wherein the internal representation of the web page comprises attributes of the web page, including:

A background color;

A number of columns of a table; and

A number of rows of a table.

Castro teaches wherein the internal representation of the web page comprises attributes of the web page, including:

A background color (see page 228);

A number of columns of a table (see pages 228 and 233. A number of columns are shown in the HTML code); and

A number of rows of a table (see pages 228 and 233. A number of rows are shown in the HTML code).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. to have included the teaching of Castro to interpret common HTML code when rendering the web page, since interpreting a web page and rendering the web page based on the tags found within it was well known to anyone of ordinary skill in the art at the time the invention was made. It would have been an obvious test as to how well a browser worked by determining whether or not the browser could render 'table' and 'background color' HTML tags.

8. Claims 8, 18, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glerum et al. (US Patent 6,652,267) in view of Marullo et al. (US Patent 6,185,701), and further in view of Shindo (US Patent 6,865,592).

Glerum et al. as modified teaches the claim upon which these claims depend.

Glerum et al. as modified does not teach automatically restarting the first browser program after a crash of the first browser program in rendering one of the web pages.

Shindo teaches automatically restarting the first browser program after a crash of the first browser program in rendering one of the web pages (see Shindo 11:15-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Shindo, since Shindo teaches that "if a failure occurs due to the Web environment on the automatic transaction apparatus side, such as halting of the Web browser, or if a failure occurs due to the Web environment on the Web server side, such as shut-down of the server or congestion on the network, the automatic transaction apparatus cannot download applications required to operate. Therefore the automatic transaction apparatus halts the process. If the automatic transaction apparatus stops, customers cannot be serviced" (see 1:31-39).

9. Claim 9-10, 19-20, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glerum et al. (US Patent 6,6529,267) in view of Marullo et al. (US Patent 6,185,701), and further in view of Garcia-Chiesa (US Pre-Grant Publication 2002/0099723).

As to claims 9, 19, and 29, Glerum et al. as modified teaches the claim upon which these claims depend.

Glerum et al. as modified teaches does not teach further comprising the step of avoiding duplicated visits to a same URL.

Garcia-Chiesa teaches further comprising the step of avoiding duplicated visits to a same URL (see Garcia-Chiesa paragraph [0010]. "Further, the methods the present invention generate lists of unique URLs that are marked each of them as static, thus the engines do not need to follow ANY non-static link. Plus, the list that follows is deduplicated, optimized and sanitized").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Garcia-Chiesa, since Garcia-Chiesa teaches that "Further more the techniques include the elimination of possible crawling loops that due to minor differences in the emitted URLs format could otherwise be undetected by crawlers not specifically aware of the non-materiality of these subtle syntactic differences" (see paragraph [0043]).

As to claim 10, 20, and 30, Glerum et al. as modified teaches the claims upon which these claims are dependent.

Glerum et al. does not teach wherein a number of URLs are removed from the URLs reported by the web crawler to generate the list of URLs (see Garcia-Chiesa paragraph [0010]. Removing duplicates will remove URLs from the list).

Garcia-Chiesa teaches wherein a number of URLs are removed from the URLs reported by the web crawler to generate the list of URLs (see Garcia-Chiesa paragraph [0010]. Removing duplicates will remove URLs from the list).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Glerum et al. by the teaching of Garcia-

Chiesa, since Garcia-Chiesa teaches that "Further more the techniques include the elimination of possible crawling loops that due to minor differences in the emitted URLs format could otherwise be undetected by crawlers not specifically aware of the non-materiality of these subtle syntactic differences" (see paragraph [0043]).

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1, 7, 11, 17, 21, and 27 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 18 April 2007 have been fully considered but they are not persuasive.

Applicant argues with regard to claims 3, 13, and 23, that Dutta et al. is invalid because it teaches browser emulations rather than browsers. However, an emulation, as stated by the Applicant, is a program. As the emulations described in Dutta et al. serve the function of browsers and are programs, they are 'browser programs'. In addition to this, Dutta et al. notes in 8:46-48 that "Another approach would be to have the actual browser programs stored in the server machine".

Applicant argues with regard to claims 4, 14, and 24 that Dutta et al. does not teach 'errors', but rather 'performance criteria'. In response to this argument, Examiner notes that generated reports what percentage of tags were displayed by a browser, the

output of dynamic scripts for compatibility across the browsers, and actual “user testing” to introduce feedback data from a biased source. Misrepresenting tag interpretation, incorrect and incompatible output for scripts, and incorrectly handling user data are all examples of ‘errors’.

Applicant argues with respect to claims 6, 16, and 26 that “the cited teaching has nothing to do with ‘a representation of rendering results’ or ‘an internal representation of a web page as interpreted by the first browser program’”, it is noted that a measure of a page’s effectiveness *represents* how a page was scored according to the system and method of Dutta et al. As this measurement is calculated inside the system and method of Dutta et al. (see 9:35-40) in response to how the selected browser programs interpreted a webpage, it fully meets the claimed limitation of “an internal representation of a web page as interpreted by the first browser program”. It is also noted that Dutta et al. may output the webpage itself, as displayed on the different browser programs. This, too, would comprise “a representation of rendering results” and “an internal representation of a web page as interpreted by the first browser program”.

Applicant argues with respect to claim 32 that “what is being described is comparison of scores of a page’s effectiveness. Renderings are not being compared”. It is noted that the scorecard is generated based on how well and how effectively a browser program rendered a web page (see 9:37-42).

**Conclusion**


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Adams whose telephone number is (571) 272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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